Contents of Volume 38, 1999

Number One (G321-0134)

Enterprise Solutions Structure 4
E. C. Plachy and P. A. Hausler (G321-5694)

A standard for business architecture description 12
D. W. McDavid (G321-5695)

A standard for architecture description 32
R. Youngs, D. Redmond-Pyle, P. Spaas, and E. Kahan (G321-5696)

Technical reference architectures 51
P. T. L. Lloyd and G. M. Galambos (G321-5697)

Solution customization 76
D. A. Leishman (G321-5698)

Experiences in reusing technical reference architectures 98
T. Harris J. W. Rothwell, and P. T. L. Lloyd (G321-5699)

Technical note—A proposal to simplify data flow diagrams 118
I. Millet (G321-5700)

Numbers Two and Three (G321-0135)

Turning points in interaction with computers 135
F. E. Allen (G321-5701)

Programming notation in systems design 139
K. E. Iverson, from 1963

A description of the SIMSCRIPT language 151
B. Dimsdale and H. M. Markowitz, from 1964

User behavior on an interactive computer system 162
S. J. Boies, from 1974

NIL: A high-level language for distributed systems programming 181
F. N. Parr and R. E. Strom, from 1983

Visual programming: Perspectives and approaches 199
N. C. Shu, from 1989

Turning points in software development 225
R. Goldberg (G321-5701)

Structured design 231
W. P. Stevens, G. J. Myers, and L. L. Constantine, from 1974

Design and code inspections to reduce errors in program development 258
M. E. Fagan, from 1976

The management of software engineering, Part I: Principles of software engineering 289
H. D. Mills, from 1980

A programming process study 297
R. A. Radice, J. T. Harding, P. E. Munnis, and R. W. Phillips, from 1985

The impact of object-orientation on application development 308
A. A. R. Cockburn, from 1993

Turning points in systems architecture 335
A. G. Ganek and E. H. Sussenguth (G321-5701)

Functional structure of IBM virtual storage operating systems, Part I: Influences of dynamic address translation on operating system technology 340
M. A. Auslander and J. F. Jaffe, from 1973

Distributed data processing 354
A. L. Scherr, from 1978

System R: An architectural overview 375
M. W. Blasgen, M. M. Astrahan, D. D. Chamberlin, J. N. Gray, W. F. King, B. G. Lindsay, R. A. Lorie, J. W. Mehl, T. G. Price, G. R. Putzolu, M. Schkolnick, P. G. Selinger, D. R. Slutz, H. R. Strong, I. L. Traiger, B. W. Wade, and R. A. Yost, from 1981

System overview of the Application System/400 398
D. L. Schleicher and R. L. Taylor, from 1989

SP2 system architecture 414
T. Agerwala, J. L. Martin, J. H. Mirza, D. C. Sadler, D. M. Dias, and M. Snir, from 1995

Turning points in information technology 449
I. Wladawsky-Berger (G321-5701)

A framework for information systems architecture 454
J. A. Zachman, from 1987

Strategic alignment: Leveraging information technology for transforming organizations 472
J. C. Henderson and H. Venkatraman, from 1993

Beyond re-engineering: The three phases of business transformation 485
W. H. Davidson, from 1993

Number Four (G321-0136)

A look at human interaction with pervasive computers 504
W. S. Ark and T. Selker (G321-5702)

Classroom 2000: An experiment with the instrumentation of a living educational environment 508
G. D. Abowd (G321-5703)

Making sharing pervasive: Ubiquitous computing for shared note taking 531
J. A. Landay and R. C. Davis (G321-5704)

Contrasting paradigms for the development of wearable computers 551
C. Baber, D. J. Haniff, and S. I. Woolley (G321-5705)

Wireless networked digital devices: A new paradigm for computing and communication 566
T. G. Zimmerman (G321-5706)

A universal information appliance 575
K. F. Eustice, T. J. Lehman, A. Morales, M. C. Munson, S. Edlund, and M. Guillen (G321-5707)

Information in places 602
J. C. Spohrer (G321-5708)

Intermediaries: An approach to manipulating information streams 629
R. Barrett and P. P. Maglio (G321-5709)

Multistream input: An experimental study of document scrolling methods 642
S. Zhai and B. A. Smith (G321-5710)

At what cost pervasive? A social computing view of mobile computing systems 652
D. C. Dryer, C. Eisbach, and W. S. Ark (G321-5711)

Turning pervasive computing into mediated spaces 677
W. Mark (G321-5712)

The origins of ubiquitous computing research at PARC in the late 1980s 693
M. Weiser, R. Gold, and J. S. Brown (G321-5713)

Note—Numbers in parentheses after issue numbers and after authors' names denote the Reprint Order Numbers.